**NWHPEC Learning Tour – Oracle HLS Mfg site**

**September 20, 2016**

Welcome: Duck Pond CR

Report Out: Broadway CR

Additional work rooms: Torii Mor CR and Rex Hill CR

Tour notes:

No open-toed shoes

Cameras are NOT allowed

Smocks and heel straps to be provided

Agenda:

By 7:30am Arrival/Networking Time

7:30 – 7:40am Introductions, Facility Information, & Safety/Evacuation Plan

7:40 – 8:00am Welcome to Oracle WWOPS Mfg in HLS- John Weinert, GMO Mfg Engineering Director

* + - * + Oracle Corporation Overview
        + Oracle Products
        + Hillsboro Factory Overview
        + WWOPS Manufacturing LEAN Program– Phil Taylor, Lean Program Leader
        + Guidelines for Factory Tour / Safety

8:00 – 9:00am Plant Tour- Susan Klein, Sr. Director Manufacturing, and John Weinert

2 groups of approximately 9 people each- Smocks and heel straps provided

9:00 – 9:15am Break

9:15 – 9:45am Discuss Project Topics

* + - * + Introduce topic process experts
        + Brief overview of the topics and why they were chosen – Project Leads
        + Review “Rules of the Day” and story board – Julie

9:45 – 11:45am Divide into work groups & begin work (revisit work areas as needed)

Notes: Group introductions

Identify scribe and Report Out presenter(s)

Project # 1- Opportunity for Improvement (OFI)

Project # 2- Color Coding within SPARC Assembly

Project # 3- Cable prep for Mech Assembly

11:45 – 12:15pm Lunch

12:15 – 12:45pm PDCA Game (Julie)

12:45 – 2:45pm Additional work time

2:45 – 3:45pm Project report-outs and final comments

3:45pm End of Day-Drive Home Safely!

**Process #1: Opportunity for Improvement (OFI)**

**Process Area: Assembly and Test Areas**

**Key Contact(s): Mike Wilson, Phil Taylor**

The OFI process is a method for gathering, communicating, and tracking the suggestions for making improvements. All employees have the ability to determine what can be improved and provide the information for the issue or improvement to be made. The OFI committee reviews the submitted OFI’s and determines the best Engineer or responsible person to address the OFI. The responsible person receives a notification of the OFI and is responsible for completing the improvement and updating the OFI. At times the large number of OFI’s being entered do not match the capacity for their timely completion.

The impacts of this process are:

* OFI suggestions alignment to the higher level organization direction
* OFI are submitted with or without a management review for duplication, past entries, low priority
* Person responsible for OFI completion can get overwhelmed with OFI
* Original submitter may or may not get the proper feedback on OFI status
* Problem statements can be misinterpreted

**Constraints**

* Improvements without changes to the current OFI database

**Deliverables**

* Draw a current state and future state block diagrams showing estimated wait times and inventory of OFI’s
* Devise a new process that aligns the OFI program to the organization’s direction, improvement for flow and quick turn, and ensuring the OFI meets the submitter’s original improvement intent.
* Suggest improvement to the process that provides a mgt review for alignment
* Create the method/ownership (leader standard work) to provide the new process is self-sustained
* Show/demonstrate the above deliverables at the Report Out

**Process #2: Color Coding within SPARC Assembly**

**Process Area: SPARC Assembly and Inventory Services**

**Key Contact(s): Courtney Snyder / Catalina Monroy / Grant Kim / Colin Ferguson**

Over the last 3 years or so since SPARC systems have been being built in Hillsboro we’ve been using color coding of our POU bins in different ways. It has since evolved into what we now have today which has become somewhat confusing with its complexity, and not scalable. We would like to have an outsider’s opinion on the system with input on how we could do this differently, or better, to be more easily understood and apparent as to what every color means.

**Constraints**

* Any solution must be a visually controlled solution
* Solution must not be too big or unwieldy as any solution has to be able to fit on even the smallest POU bin and scale the largest POU bin

**Deliverables**

* Draw a current state block diagram reflecting the operator usage process and replenishment process
* Improvements to the system should include:
  + A scalable and simplified solution
  + Must be a visual control, but not limited to color
  + Have a way of identifying what bins belong to what product, and process
  + Bins identify their location
  + Simple method to determine bins go to Prep area instead of Receiving
* Create the method/ownership (leader standard work) to provide the new process is self-sustained
* Draw a future state block diagram showing the improved operator usage process and replenishment process
* Show/demonstrate the above deliverables at the Report Out

**Process #3: Cable prep for Mech Assembly**

**Process Area: Complex Rack Assembly**

**Key Contacts: Jake H. / Erica S.**

Complex Racks are assembled in 3 different areas: Cable Prep, Mech Assembly, and Cabling. Cable Prep prepares cables for use in both Mech Assembly and Cabling. Cable Prep and Mech Assembly can and often will begin work on the same job at the same time. The cables that are needed in Mech Assembly are prioritized as part of the Cable Prep process in order to have them ready as soon as possible to not halt the Mech Assembly build process. The remainder of the cables for the job are prepared in Cable Prep and delivered to a Cabling bay to await the corresponding system from Mech Assembly.

There is currently no process defined for where and how Cable Prep should stage cables needed in Mech Assembly in the case where the cables are ready before they are needed in Mech Assembly. This causes Mech Assembly personnel to have to investigate whether the cables they need are not yet ready, waiting in Cable Prep, or sitting in a Cabling bay with the rest of the cables.

**Constraints:**

* Any new visual controls used must follow or not conflict with current visual controls
* Maintain the current number of operators and floor space
* Log ops cannot be changed

**Deliverables:**

* Create current state and future state block diagrams reflecting the current cable prep process for Cable Prep and Mech Assembly
* Develop a system that quickly and visually identifies which cables are ready, for which job, and in what order (priority)
* Design a Cable Prep visual staging system that clearly identifies the cables current location and readiness
* Create the method/ownership (leader standard work) to provide the new process is self-sustained
* Show/demonstrate the above deliverables at the Report Out